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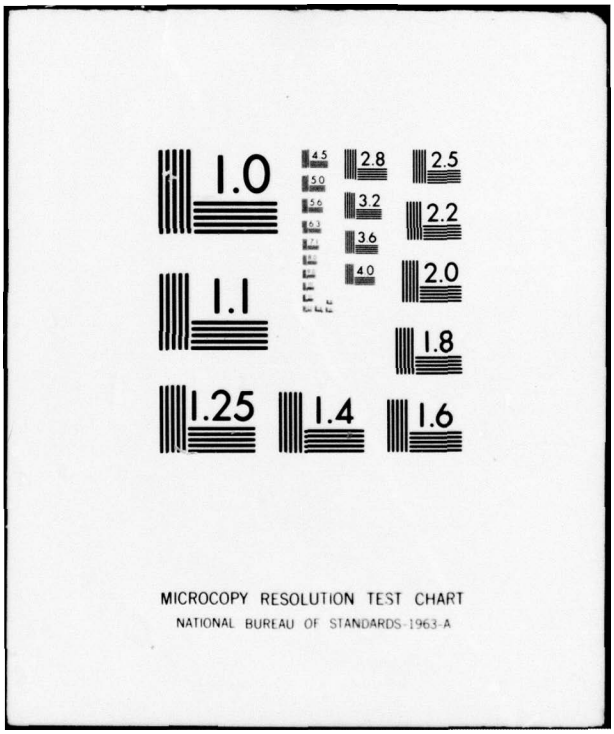
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Case report of an adenocarcinoma of minor salivary gland of the palate of five years duration. Emphasis has been placed on the surgical management and immediate postoperative care. Frequent postsurgical evaluation has been stressed to rule out evidence of recurrence or metastasis.



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# Adenocarcinoma of the Palate - Diagnosis and Management

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John F. Nelson, B.S., D.D.S.**

The hard and soft palate contain numerous aggregates of minor salivary gland tissue which provide a potential source of salivary gland neoplasia. Batsakis states that more than fifty percent of intraoral minor salivary gland tumors occur in the palate.[1] Coates, et al. agree with Batskis that more than fifty percent of these tumors are malignant.[1,2] This startling statistic emphasizes the importance of biopsy procedures related to swellings of the region of the hard and soft palate. Non-subclassified adenocarcinoma of the minor salivary glands is reported to be seen infrequently.[1] However, these lesions appear to present the least favorable prognosis of all malignant minor salivary gland tumors.[3]

Bhaskar states that radical surgical excision is the treatment of choice for this lesion with radiation therapy being reserved as an adjunct or as palliative treatment in inoperable cases.[4] Kadish, et al. however states that small malignant salivary gland tumors arising in the oral cavity can be treated equally well with radiation.[5]

Patients undergoing surgical excision require special postoperative care. The surgical management of lesions of the hard palate using an acrylic splint lined with soft tissue conditioners offers many advantages to the patient.[6]

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Case Report

In September, 1969, a missionary sought care for a 35 year old Leper at the 71st Evacuation Hospital, Pleiku, Vietnam. This patient reportedly suffered from a large mass growing from his mouth. He was subsequently examined and found to have a large maxillary tumor which occupied the entire palatal vault and interfered with normal mastication (Fig. 1). Close examination revealed the tumor to be widely pedunculated with an ulcerative surface. Sinus and intraoral radiographs revealed no apparent involvement of the boney hard palate. No cervical lymphadenopathy was present at this time.

An incisional biopsy was performed which resulted in a preliminary diagnosis of benign mixed tumor of salivary gland origin. Maxillary and mandibular impressions were made and stone casts fabricated. The area representing the lesion was removed from the palatal portion of the stone model to approximate the anticipated postoperative contour. A maxillary acrylic splint was then constructed to the dimensions of the altered cast.

The patient was admitted to the oral surgery service in October, 1969. Physical examination revealed a 35-year-old Leper with a tumor in the palatal vault as previously described. The past medical history revealed this mass to be of at least five years duration with gradual enlargement to its present size. No regional lymphadenopathy was noted. The remainder of the physical examination and medical history was essentially non-contributory except as related to his leprosy. Consultation with general surgery and ENT resulted in a recommendation of wide surgical excision of the lesion.

The patient was taken to the operating room and anesthesized with naso-endotracheal general anesthesia supplemented locally with two percent lidocaine containing 1:100,000 epinephine. He underwent a wide excision of the palatal lesion to include the periosteum and greater palatine vessels and nerve. Resorption of alveolar bone on the lingual aspect of the maxillary left second bicuspid and first molar was evident at time of surgery and consequently these teeth were removed to assure a good surgical margin. The antral mucosa was intact and separated easily from the periosteum. Hemorrhage from the anterior palatine canal was controlled with bone wax. The soft palate incision was closed with 000 chromic catgut (Fig. 2). The previously constructed maxillary acrylic splint was wired into place to cover the surgical defect (Fig. 3). The patient tolerated the procedure well and there were no postoperative complications. Nine days following surgery the acrylic splint was removed to evaluate healing progress. The surgical defect was filled with apparently healthy granulation tissue (Fig. 4). The bone wax was removed from the greater palatine foramen, the wound irrigated, and the splint again wired to place. At this point the final report on the initial biopsy was returned from a consulting pathology laboratory with the diagnosis of cellular mixed tumor. The biopsy report on the excised tumor mass was reported as follows: "Tumor of palate measuring 4.5x3.5x2.0 cm. Microscopic diagnosis - malignant mixed salivary gland tumor with prominent features of adenocarcinoma and areas of squamous metaplasia and atypia". In view of the patient's uncomplicated postoperative course, careful follow-up with no additional surgical intervention was planned. Approximately one month postoperatively the patient presented with an area of what appeared to be exuberant granulation tissue. This was confirmed by biopsy. Healing of the surgical defect and tooth sockets continued and matured to a normal appearing palate and

alveolar ridge (Fig. 5).

A review of the histologic slide of the operative specimen revealed a multifocal tumor the lobules of which were divided by dense collagenous connective tissue. The pedicular portion appeared to be tumor free. Within the lobules existed an epithelial cell type the configuration of which was suggestive in most areas of primitive ductal formation. The cells comprising the abortive cords and ducts were moderately plemorphic although mitoses were not abundantly noted. Most cells had a rather clear-staining nucleus with prominent nucleoli. The cytoplasm was variable and in some cells suggestive of mucous content. Isolated tumor areas presented foci of squamoid metaplasia reminiscent of mucoepidermoid carcinoma. However, the major tumor mass was ductal and cellular in nature. Mucicarmine special stains failed to demonstrate intercellular mucin. The diagnosis was adenocarcinoma, moderately well differentiated and not subclassified (Fig. 6).

Discussion

The treatment of adenocarcinoma of the palate, without evidence of metastasis, is generally accepted to be wide local excision. Radiation therapy had traditionally been reserved for inoperable cases where palliative treatment was indicated. However, some authors feel the radiocurability of minor salivary gland malignancies is primarily a function of location and extent of metastases rather than specific tumor type.[5]

The patient who undergoes surgical treatment of palatal malignancies requires special postoperative care. A simple maxillary acrylic splint to protect the granulation bed provides the patient a more comfortable postoperative course. As a result of this protection the individual can better tolerate a regular diet which in turn enhances healing. The splint should be removed periodically for irrigation and inspection of the healing surgical

site. Recurrence of malignant salivary gland tumors is usually manifested within two to four years.[5] This emphasizes the requirement of close post-operative follow-up to rule out recurrence or metastasis of this lesion.

This case was unusual from a diagnostic standpoint. A rapidly growing malignancy rarely presents with a pedunculated base especially one that was apparently free of tumor. The question of transformation to adenocarcinoma from a benign cellular mixed tumor versus de novo adenocarcinoma is perhaps of academic interest only. However, the transformation theory may fit best with the gross morphologic picture seen here and may help explain the pedunculated feature. One must, on the basis of the microscopic findings of the operative specimen, be guarded in prognostic considerations.

## Summary

A case of adenocarcinoma of the palate has been presented. Emphasis has been placed on the surgical management and immediate postoperative care. Frequent postsurgical examination has been stressed to rule out evidence of recurrence or metastasis.

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## LEGEND OF ILLUSTRATIONS

Figure 1 - Adenocarcinoma of palate

Figure 2 - Immediate postsurgical site

Figure 3 - Maxillary splint with circumdental fixation

Figure 4 - Nine day postsurgical site

Figure 5 - Healed surgical site

Figure 6 - Biopsy of operative specimen illustrating tumor cells in abortive ductal configuration (H&E stain magnification x250)

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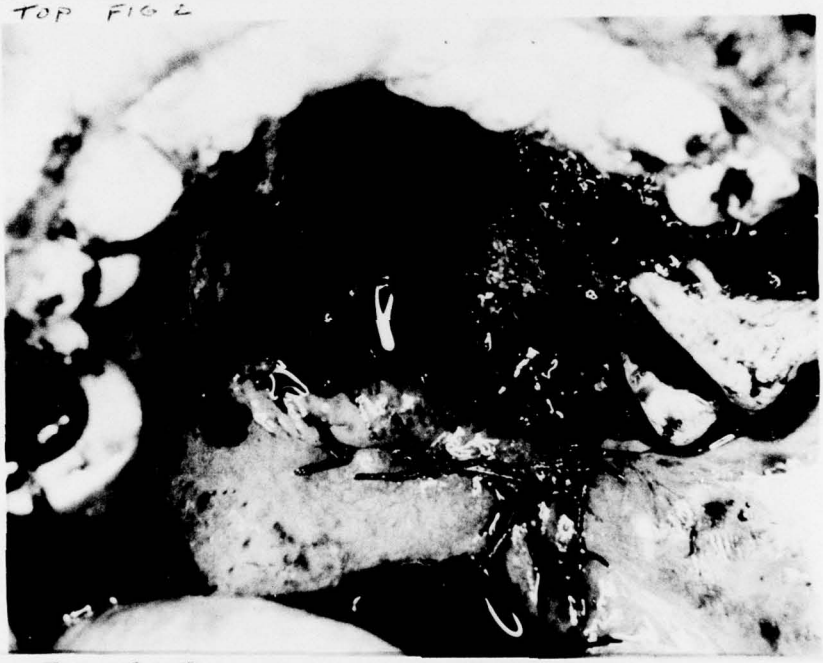
Top Fig 2



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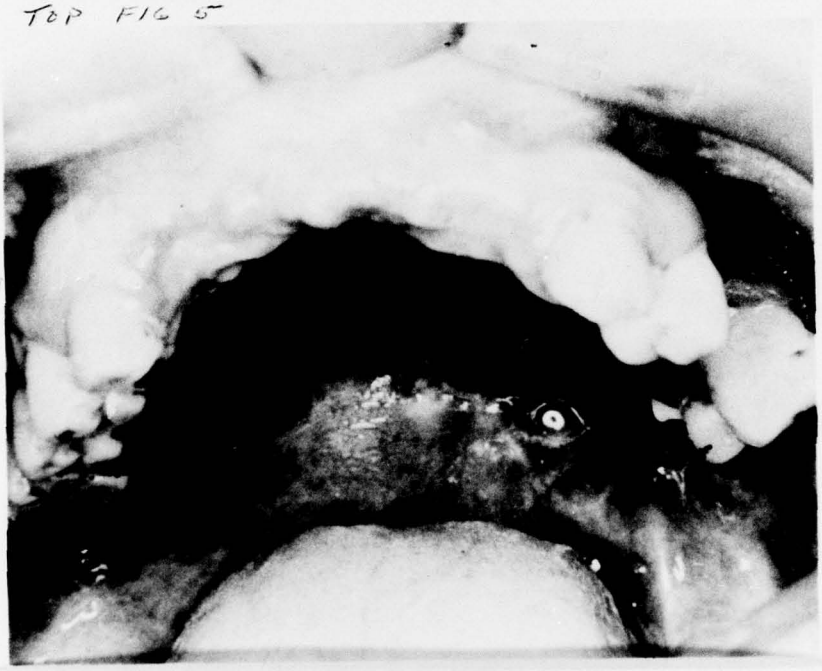

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